

IN THE CLAIMS:

Please cancel Claim 8 without prejudice or disclaimer of subject matter, and amend the claims as shown below. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) A method of offering a service provided by a server computer in a communication network, comprising:  
  
    sending, from the server computer that provides the service to a client computer, a service description document in a language for describing web services, which is independent of any client or user characteristic, the service description document comprising a description defining the type, content and sequencing of data exchanged between said server and any client when said service is executed, and comprising a description of a processing functionality implemented during a preprocessing or post-processing of data in XML format of a message exchanged during the execution of said service on the communication network,  
  
    wherein the description of said processing functionality comprises a list of properties supported by said processing functionality, said properties defining at least respectively, the node in the communication network adapted to execute said processing, and the type of processing, and  
  
    wherein the description of said processing functionality comprises a property adapted to specify whether the processing to be carried out is obligatory or optional, and

wherein said processing functionality also comprises a property adapted to specify whether said pre-processing is carried out on the reception of said message before executing said service or whether said post- processing is carried out on the sending of said message after executing said service.

2. (Previously Presented) The method according to Claim 1, wherein said processing functionality defines preprocessing or post-processing adapted to produce or use data in XML format defined in a first abstract part of the service description document.

3. (Previously Presented) The method according to Claim 2, wherein the description of said processing functionality is inserted in said first abstract part of the service description document.

4. (Previously Presented) The method according to Claim 1, wherein said preprocessing or said post-processing is implemented via a script language.

5. (Previously Presented) The method according to Claim 1, wherein said processing functionality description is defined as a data item in XML format in a first abstract part of the service description document.

6. (Previously Presented) The method according to Claim 5, wherein said data item in XML format defining said processing functionality description is encoded in a second concrete part of the service description document.

7. and 8. (Canceled)

9. (Previously Presented) The method according to Claim 1, wherein said processing functionality also comprises a property adapted to specify the message or a set of messages to which said pre-processing or post- processing applies.

10. (Previously Presented) The method according to Claim 1, wherein said processing functionality also comprises a property adapted to define the data produced or used by said preprocessing or post- processing, and may also include the type of said data.

11. (Canceled)

12. (Previously Presented) The method according to Claim 1, wherein, for at least one property supported by said processing functionality, the description of said processing functionality comprises a list of values attributable to said property.

13. (Currently Amended) A method of testing access to a service by a client computer in a communication network, from a service description document, comprising the following steps implemented by said client computer:

extracting from said service description document, provided by a server computer offering said service, a description of a processing functionality implemented

during a preprocessing or the post-processing of data in XML format of a message exchanged during the execution of the service on the communication network;

reading, from the extracted description of said processing functionality, a value associated with a property adapted to specify whether the processing must be executed by the client computer;

reading, from the extracted description of said processing functionality, a value of a property adapted to specify whether the processing is obligatory or optional; and

verifying whether the processing is supported by the client computer in the communication network when said processing is obligatory and must be executed by said client computer in the communication network,

wherein said processing functionality also comprises a property adapted to specify whether said pre-processing is carried out on the reception of said message before executing said service or whether said post- processing is carried out on the sending of said message after executing said service.

14. (Previously Presented) A method of validating a message received by an intermediate computer in a communication network, comprising the following steps:

acquiring the message, at the intermediate computer, from a service description document comprising a description of a processing functionality implemented during a preprocessing or the post-processing of data in XML format of the message exchanged during the execution of a service on the communication network;

extracting, from the service description document, the description of a service associated with the document;

extracting a processing from the received message;

acquiring from said service description document at least one imperative value associated with a property of the processing;

verifying whether said imperative value is included in a list of values which can be attributed to a property supported by said processing functionality described in the service description document;

reading a value associated with a property adapted to specify whether the processing is executed before or after the sending of said message;

executing said processing when said read value specifies that the processing must be executed before the sending of the message; and

validating the result of said processing with respect to a type of data specified in said service description document.

15. (Canceled)

16. (Currently Amended) A device for offering a service provided by a server computer in a communication network, comprising:

sending means for sending, from the server computer that provides the service to a client computer, a service description document in a language for describing web services, which is independent of any client or user characteristic, the service description document comprising a description defining the type, content and sequencing of data exchanged between said server and any client when said service is executed, and comprising a description of a processing functionality implemented during a preprocessing

or post-processing of data in XML format of a message exchanged during the execution of the service on the communication network,

wherein the description of said processing functionality comprises a list of properties supported by said processing functionality, said properties defining at least respectively, the node in the communication network adapted to execute said processing, and the type of processing, and

wherein the description of said processing functionality comprises a property adapted to specify whether the processing to be carried out is obligatory or optional, and

wherein said processing functionality also comprises a property adapted to specify whether said pre-processing is carried out on the reception of said message before executing said service or whether said post- processing is carried out on the sending of said message after executing said service.

17. (Currently Amended) A device for testing access to a service by a client computer in a communication network, from a service description document, implemented by said client computer, comprising:

extracting means for extracting from said service description document, provided by a server computer offering a service, a description of a processing functionality implemented during a preprocessing or a post-processing of data in XML format of a message exchanged during the execution of the service on the communication network;

first reading means for reading, from the extracted description of said processing functionality, a value associated with a property adapted to specify whether the processing must be executed by the client computer;

second reading means for reading, from the extracted description of said processing functionality, a value of a property adapted to specify whether the processing is obligatory or optional; and

verifying means for verifying whether the processing is supported by the client computer in the communication network when this processing is obligatory and must be executed by the client computer in the communication network,

wherein said processing functionality also comprises a property adapted to specify whether said pre-processing is carried out on the reception of said message before executing said service or whether said post- processing is carried out on the sending of said message after executing said service.

18. (Previously Presented) A device for validating a message received by an intermediate computer in a communication network, comprising:

acquiring means for acquiring the message, by the intermediate computer, from a service description document comprising a description of a processing functionality implemented during a preprocessing or a post-processing of data in XML format of the message exchanged during the execution of a service on the communication network;

extracting means for extracting, from the service description document, a description of a service associated with the document;

extracting means for extracting a processing from the received message;

acquiring means for acquiring, from said service description document, at least one imperative value associated with a property of the processing;

verification means for verifying whether the imperative value is included in a list of values which can be attributed to a property supported by the functionality described in the service description document;

reading means for reading a value associated with a property adapted to specify whether the processing is executed before or after the sending of said message;

execution means for executing said processing when said read value specifies that the processing must be executed before the sending of the message; and

validating means for validating the result of said processing with respect to a type of data specified in said service description document.

19. (Previously Presented) A server computer in a communication network, comprising means adapted to implement the method of offering a service according to Claim 1.

20. (Previously Presented) A client computer in a communication network, comprising means adapted to implement the method of testing access according to Claim 13.

21. (Previously Presented) A computer in a communication network, comprising means adapted to implement the method of validating a message according to Claim 14.



22. (Previously Presented) A computer-readable storage medium on which is stored a computer executable program to implement the method of offering a service according to Claim 1.

23. (Previously Presented) A computer-readable storage medium on which is stored a computer executable program to implement the method of testing access according to Claim 13.

24. (Previously Presented) A computer-readable storage medium on which is stored a computer executable program to implement the method of validating a message according to Claim 14.